Stock Number (NSN): 6130-01-060-2938 Part Number (P/N): SRL40-12M23 Nomenclature: Power Supply

Application: Global Awareness

# SECTION C: QUALIFICATION REQUIREMENTS THAT MUST BE SATISFIED TO BECOME A QUALIFIED SOURCE AND QUALIFICATION WAIVER REQUIREMENTS.

- 1. <u>Pre-qualification Notice</u>. The offeror shall notify the Small Business Office or, if responding to a solicitation, the contracting officer in OO-ALC/LHK of intent to qualify as a source for this item.
- 2. Repair, Test and Inspection Capability. The offeror shall certify to the design control activity (OO-ALC/LHJE), the availability of the required repair, test, inspection, and diagnostic facilities and equipment, or provisions for their acquisition or utilization from another source.
- 3. <u>Data Verification</u>. The offeror shall verify possession of a complete data package by providing a list of applicable drawings, procedures, and specifications currently in his possession related to the repair of the Power Supply. This drawing package must be sufficient to show in thorough technical detail how the Power Supply shall be repaired and tested. **Development of special test procedures not available from the government is required**. The offeror shall develop those procedures for review and approval by the design control activity. In addition the package must contain an acceptance test procedure designed to be a final functional checkout of repaired devices sufficient in detail to ensure all operational functions meet specification. When the offeror proposes to use industry standards during repair of the Power Supply, the offeror shall document the differences between the industry standard and the military standard, and state why those differences do not adversely affect the ability of the Power Supply to pass the final functional checkout. The design control activity shall determine if the industry standard is acceptable for use in the repair of the Power Supply
- 4. Process Verification. The offeror shall identify sources for materials and standards for internally used processes. The offeror shall further define/provide written procedures for the utilization of any special test or inspection facilities and/or equipment. This documentation shall also include a diagnostic procedure showing the process the Power Supply being repaired would undergo. The repair process shall show how the offeror shall test, inspect, diagnose, repair and perform a final functional checkout. Development of special test procedures not available from the government is required. The offeror shall develop those procedures for review and approval by the design control activity. Due to diminishing manufacturing sources (DMS), many of the piece-parts listed in the design may no longer be available. The contractor must be capable of locating alternative components to eliminate any DMS problems.
- 5. Test and Evaluation or Verification. The offeror shall submit to the design control activity an explanation of how they will certify that the test methods and repair procedures meet the specifications for the Power Supply. The government retains the option to inspect the offeror's repair and testing facilities. To allow accomplishing this, the offeror's facilities shall be made an available to government inspection during the qualification effort upon ten days written notice of intent to inspect.
- 6. Qualification Article. Upon satisfactory compliance with the provisions of paragraphs 1 to 5 above, the government will provide, where deemed necessary at the governments discretion, the offeror a non-serviceable Power Supply for performance of the repair capability demonstration. This unit shall be repaired at the offeror's expense and returned to the government for testing and verification of serviceability. The returned unit will be evaluated by the cognizant design control activity and shall demonstrate full operational serviceability. Upon successful completion of testing, the Power Supply will be returned to the Air Force inventory as a serviceable asset

# REPAIR SOURCE QUALIFICATION STATEMENT (PUBLIC LAW 98-525, 10 USC SECTION 2319)

SEP 1 2 2002

Stock Number (NSN): 6130-01-060-2938 Part Number (P/N): SRL40-12M23 Nomenclature: Power Supply Application: Global Awareness

Estimated likely costs for testing and evaluation, which will be incurred by the potential offeror to become qualified: \$1,000.

7. Sensitive Military Technology. Not applicable.

- 8. Testing and Repair Evaluation. The offeror shall be required to submit a complete test report verifying compliance with all performance, environmental, mechanical, and quality assurance requirements identified by the specified Raytheon drawing #584785-1, and related drawings. In addition the test report shall contain detailed documentation describing the testing procedures during repair. This data shall describe in detail the point(s) in the repair process that testing occurred, and if failures were noted, the corrective action taken and the results of the retest. The government retains the option to inspect the repair and testing process, including on-site witnessing of any or all repair and testing activities. The offeror will provide notification to the government of testing and evaluation 30 days in advance so that the government can witness, if needed, and coordinate needed activities, support, etc.
- 9. <u>Time Completion Estimate</u>. It is the estimate of the design control activity that completion of this qualification effort should require 180 days. This is based on complexity of the Power Supply and other factors. This is not a deadline but a notification to a potential offeror of the time we believe will be required. Events that occur during the qualification process may cause this time requirement to increase or perhaps decrease, depending on individual circumstances.
- 10. <u>Time Limitation.</u> An offeror may not be denied the opportunity to submit and have considered an offer for a contract if the offeror can demonstrate to the satisfaction of the contracting officer that the offeror (or its product) meets these standards for qualification or can meet them before the date specified for award of the contract. The award will not be delayed to provide the vendor with an opportunity to demonstrate its ability to meet the standards specified in this source qualification statement.
- 11. Evaluation of Proposals Not Previously Qualified. The offeror must be fully qualified in order to be eligible for a contract award. Therefore, the offeror must fulfill all of the requirements stated, in writing, in the source qualification statement before the date specified for award of the contract. The government reserves the right to award a contract at the time specified for award, to a qualified source even though other sources may not have finished qualifying.
- 12. Waiver. An offeror who has had previous experience in the repair of the Power Supply or other similar items may apply to the design control activity for a waiver of all or part of the above requirements. A waiver will be granted only if the design control activity can establish the qualification of the offeror from previous knowledge/interface or from written inputs from the offeror.
- 13. <u>Approval.</u> Once the qualification requirements are met, the offeror will be listed as an approved source for this item. Approval, however, does not guarantee subsequent contract award.

#### DEPARTMENT OF THE AIR FORCE OGDEN AIR LOGISTICS CENTER, HILL AFB, UTAH 84056-5820

## WORK DESCRIPTION DOCUMENT (WDD)

PR NO: F02020 -02-65553

DATE: 6/17/2002

1.0 SCOPE OF WORK: For the following end item(s), the contractor shall furnish all facilities, parts, materials, data, equipment and services, required to dissemble, inspect, repair as necessary, upgrade, reassemble, align and functionally test each item(s), returning the item(s) to a serviceable condition:

ITEM DESCRIPTION:

P/N:

Power Supply

NSN: 6130-01-060-2938 ZA

584785-1

ESD: Sensitive

This WDD establishes the minimum work requirements to return the end item(s) to a serviceable but not like new condition.

**2.0 REF. DOCUMENTS:** Air Force SCD Cage Code 49956

Drawing Number 584785

#### 3.0 WORK PERFORMANCE REQUIREMENTS:

- 3.1 Technical or Performance Requirements: All repaired items will be configured and perform IAW with drawing 584785.
- 3.2 Tasks/Listing/Description: When the esdtimated cost to the government for repair of item(s) including labor and materials is in excess of 75% of the acquisition cost, the contractor shall not repair the part unless authorized by the Procurement Contracting Officer (PCO) through the Administrative Contracting Officer (ACO). NOTE: If firm fixed prices for repair have been established under this contract, this paragraph does not apply.
  - 3.3 Test Requirements: The repair items shall meet drawing 584785

### 4.0 PACKAGING, HANDLING, SECURITY AND TRANSPORTATION:

- 4.1 RECEIVING INSPECTION: Contractor shall notify the ACO or Quality Assurance Representative (QAR) of all damages and shortages, or discrepancies discovered on receipt of any item(s).
  - 4.2 SECURITY: No security provisions are required.
- 4.3 MARKING: Contractor shall permanently and legibly mark each end item(s) with the contractor's name, Air Force contract number and the date of repair as close as practical to existing nameplate/identifying markings.

#### DEPARTMENT OF THE AIR FORCE OGDEN AIR LOGISTICS CENTER, HILL AFB, UTAH 84056-5820

## WORK DESCRIPTION DOCUMENT (WDD)

- 4.4 REFINISHING: Refinish only to the extent necessary to assure adequate protection of all surfaces. Do not refinish to a "like new" condition merely for appearance.
  - 4.5 CAPPING AND RESEALING: Cap all electrical connectors.
- 4.6 REUSABLE CONTAINERS: Contractor shall handle and store reusable containers and materials used for packing and packaging in a manner which shall assure that they are retained in a serviceable condition for reuse. If containers are received in unserviceable condition, notify the ACO for repair/replacement instructions.
  - 4.7 Handling: These items have been identified as electrostatic discharge sensitive .
- **5.0 CONDEMNATION:** Contractor shall not condemn item(s) without prior approval by the PCO through the ACO. Contractor shall make disposition of the condemned item in the manner directed by the ACO.

#### 6.0 SAFETY:

- 6.1 Contractor shall comply with all applicable Federal, State (as may be applicable) and local legal requirements reguarding workers health and safety. Contractor is solely responsible for determining the legal requirements that apply to his activities.
- 6.2 Contractor shall provide protection to government property to prevent damage during the period of time the property is under the control or possession of the contractor.
- 6.3 Contractor shall record and report promptly to the Procurement Contracting Officer or designated government representative, all available facts relating to each instance of accidental damage to government property or injury to either contractor or government personnel. The contractor shall not perform any work on the damaged equipment/property until released by an authorized government representative. If the government elects to conduct an investigation of the accident, the contractor shall cooperate fully and assist the government personnel until the investigation is completed.
- 7.0 **PRECEDENCE:** In case of conflict between this WDD and a referenced document, this WDD takes precedence.

James & Beacow

APPLI	CATION	REVISIONS									
NEXT 4SSY	USED ON	ETR	DESCRIPTION	DATE	APPROVED						
LISTED ON		-	ORIGINATED	-	_ £ 6.7						
914061	PAVE PAWS	7	SEE WECO 48243 P.R.	21 MAR78							
953252	PAVE PAWS	В	SEE WECO 150951 M.H.	3N0V89	P C						

NOTICE: THIS DRAWING IS IN ACCORDANCE WITH DOD-D-1000, LEVEL 1.

									,			P #	ART N	NUMBER: 584785-1		
REV STATUS	REV LTR		В		-									SPECIFICATION		
OF SHEETS	SHEET NO	10.		2	3									CONTROL DRAWING		
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10-2735 (6-72) FILM PRINTED IN U.S.A.

3 SHEETS ATTACHED

#### NOTES:

- 1. DESCRIPTION: POWER SUPPLY, DC, 0-40 VDC, 8A AT 71°C.
- 2. REQUIREMENTS:
- 2.1 PIN ASSIGNMENT: SHALL BE PER FIGURE 1.
- 2.2 CONFIGURATION AND DIMENSIONS SHALL BE PER FIGURE 1.
- 2.3 POWER SUPPLY RESPONSE VERSUS CONDITION OF PRIMARY POWER: SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF MIL-E-4158E, PARAGRAPH 3.2.30.3:2.1.
- 2.4 THE PEAK INRUSH CURRENT, AT TURN-ON, SHALL NOT EXCEED 40 AMPERES WITH RATED LOAD CONNECTED TO POWER SUPPLY. INRUSH DURATION SHALL NOT EXCEED 25 MILLISECONDS FOR EACH TURN-ON.
- 2.5 THE MINIMUM EFFICIENCY WITH NOMINAL INPUT VOLTAGE AND RATED LOAD CONNECTED TO POWER SUPPLY SHALL BE
- 2.6 BITE SHALL CONSIST OF AN UNDERVOLTAGE MONITOR. THE TRIP POINT SHALL BE ADJUSTABLE BETWEEN 29 V AND 33 V. FAULT REPORTING SHALL BE BY SINGLE-POLE DOUBLE-THROW CONTACTS. THE N-C CONTACT IS TO BE USED FOR A USED FOR A FAULT CONDITION.
- 2.7 COOLING IS BY FORCED AIR OF 140 CFM AT 78°F, AND SHALL BE PROVIDED BY RAYTHEON.
- 2.8 MARKING: SHALL BE IDENTIFIED PER MIL-STD-130 IN ADDITION TO MARKING AS INDICATED IN FIGURE 1.
- 2.9 THE FOLLOWING MODIFICATION SHALL BE MADE TO EACH POWER SUPPLY. THE WIRE FROM THE ANODE OF CR50 TO THE SUPPLY POSITIVE OUTPUT VOLTAGE TERMINAL SHALL BE REMOVED AND REPLACED WITH A 5.6 OHM 14 WATT RESISTOR PART NUMBER RW56V5R6. PER MIL-R-26. THIS MODIFICATION IS NECESSARY TO LIMIT THE PEAK CURRENT INTO CR50, DUE TO A CAPACITIVE LOAD OF 300,000 MICROFARADS, DURING OVER VOLTAGE CROW EAR

SUGGESTED SOURCE(S) OF SUPPLY:

SORENSEN CO. A DIV OF SWITCHCRAFT INC SUB OF RAYTHEON CO CAGE CODE 7H381 PAXTON, IL 60957 MFR PART NUMBER: SLR40-12-23

SIZE	499	DRAWN	o. 84785	
SCALE	NONE	REY	В	SHEET

# SRL: Electrical Specifications SUPPLEMENT TO 584785

- Remote Sensing: 1 volt per load lead (maximum allowable)
- Series Operation: Up to 200 Vdc output maximum
- Parallel Operation: 3 units maximum in parallel
- Operating Temperature Range: 0°C to 71°C
- Storage Temperature: -65°C to +85°C
- Isolation voltage to Ground: 1000 Vdc input;
  - RFI: MIL-I-6181D
- 200 Vdc output

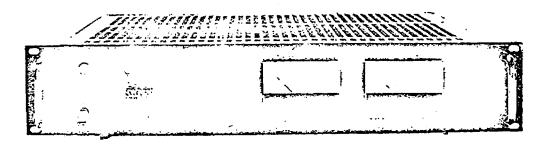
- Output Voltage Turn-On/Turn-Off Overshoot: None
- Output Current Turn-On/Turn-Off Overshoot: None
- Overload/Short Circuit Protection: Crossover to current mode or crossover to voltage mode
- Overvoltage Protection: 10 microsecond crowbar
- Finish: Case is finished in black semi-gloss baked enamel; front panel is finished in black semi-gloss enamel / white lettering.
- Programming: Adjustable resistance and voltage (gain) programming constants. Complete details are in Sorensen's Performance Note PAN-1.

Output Power				,		Conela	Constant Current Mode					
	Voltage		rrent (	(Ade)	1		(PARO)		Transient		Ripple <sup>1</sup> (PARD)	
Madel	(Vde)	55°	60°	71°C	Regulation	(10 Hz to 7 MHz)	9 – p (7 Hz lo 25 MHz)	Resolution (Typ.)		Regulation <sup>2</sup>	rms (10 Hz to 7 MHz)	Resolution (Typ.)
8RL10-25	0-10	25	22	16.7	.01% or 2mV*	350 <sub>H</sub> Y	20mV	5mV	150 <sub>#</sub> s	.02% + 4mA	10mA	3.75mA
SRL10-50	0-10	60	44	33.5	.01% or 2mV*	300 <sub>pt</sub> V	10mV	1mV	160µs	.02% + 4mA	20mA	7.5mA
SRL10-100	0-10	100	84	67	.01% or 2mV <sup>4</sup>	300 <sub>k</sub> V	20mV	SmV	150µ8	.02% + 6mA	30mA	18mA
SRL20-12	0-20	12	10.5	8	.01 % or 2mV*	200 <sub>#</sub> ∨	<b>20</b> mV	2тг∀	70 <sub>µ</sub> s	.02% + 4mA	SmA	1.8mA
\$RL20-25	0-20	25	22	16.7	.01% or 2mV <sup>4</sup>	300 <sub>#</sub> ∨	20mV	SmV	150µs	.02% + 4mA	10mA	3.75mA.
SRL20-50	0-20	50	44	33.5	.01% or 2mV <sup>4</sup>	600 <sub>js</sub> ∨	40mV	5mV	150 <sub>µ</sub> s	.02% + 4mA	TOmA	7.5mA
SRL40-0	0-40	6	5.3	4	.01% or 2mV*	300 <sup>™</sup> A	20mV	4mV	70µ8	.02% + 1mA	0.5mA	0.9mA
SRL40-12	0-40	12	10.5	•	.01% or 2mV	\$00 <sub>µ</sub> V	20mV	<b>\$</b> m∀	150µ\$	.02% + 4mA	TmA	1.8mA (
\$RL40-25	0-40	25	22	16.7	.01% or 2mV*	500 <sub>ji</sub> .V	· 10mV	4mV	عبر150 ع	.02% + 4mA	10mA	3.75mA
SRL40-50	0-40	50	44	33.5	.01% or 2mV	700 <sub>#</sub> V	40mV	5mV	150µs	.02% + 4mA	10mA	7.5mA
SRL60-4	0-60	4	3.5	2.68	.01% or 2mV <sup>4</sup>	300 <sub>/4</sub> V	20mY	6mV	<b>ع</b> ب70	.02% + 1mA	0.5mA	a.em4
SRLEG-S	0-60	•	7	5.36	.01 % or 2mV <sup>4</sup>	300 <sub>p</sub> .V	20mV	5mV	70µ\$	.02% + 1mA	1mA	1.2mA
6RL80-17	0-60	17	14.9	11.4	.01 % or 2mV	500 <sub>p</sub> V	10mV	6mV	150µ\$	.02% + 4mA	3mA	2.5mA
8RL60-35	0-60	35	31	23.4	.01% or 2mV <sup>2</sup>	700 <sub>#</sub> V	40mV	5mV	150 <sub>#</sub> 8	.02% + 4mA	10mA	4.25mA

#### NOTES:

- With load change (NL to FL or FL to NL) and line voltage change (±10%) combined.
- 2. Whichever is greater.

- 3. At full compliance voltage.
- 4. For 8 hours (after 30 min, warmup) with constant line, load and ambient temperature.
- 5. To return to a bandwidth of ±10mV for a step load change of



#### Panel Controls, Meters, and Protective Devices

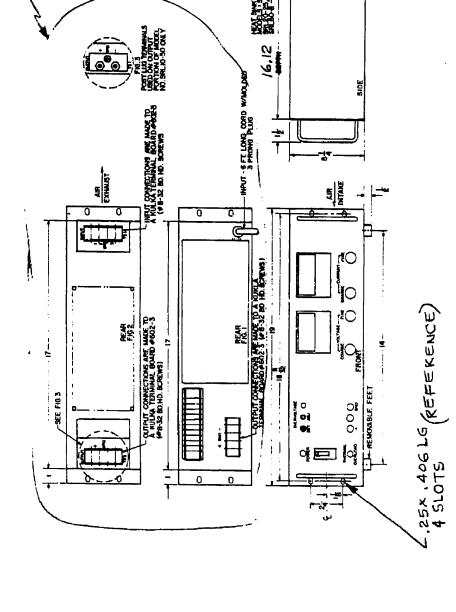
- Power on/off switch or circuit breaker
- Input line fuse (rear)
- Power on Indicator light
- Individual "coarse and fine" output voltage controls
- Individual "coarse and fine" output voltage controls
- Output voltmeter
- Output ammeter
- Overvoltage adjust (recessed)
- Overvoltage Indicator light
- Overvoltage adjust meter switch
- Front and rear output terminals
- Thermal overload indicator light on fan-cooled units.

	Temperature Coefficient		1			ing Constants				Input Power (single phase, 47-53/57-63 Hz)		Power	
Yoltage	Current	Drift <sup>4</sup> (Typ.)		Voltage Mode <sup>a</sup>		Current Mode		(2% ac		Voltage (Vac)	Current Max (Aac)	Factor (Typ.)	Cooling
.01% +200μV	(∆/°C) ,01% +1mA	.025% +500μV	.03% ÷3mA	200(7/volt	Volts 1 volt/volt	Ohms (±10%) 40Ω/Amp	Volts l 20mV/Amp	Voltmeter 0-12V	0-30A	105-125° 190-230 210-250	7.5 4.1 3.75	0.67	Convection
.01% +200 <sub>#</sub> V	.01% +1mA	.025% +500µV	.03% +3mA	200Ω/volt	i volt/wolt	. 50⊍\www.	8mV/Amp	0-12V	0-60A	105-125° 190-230 210-250	14.7 8.0 7.3	0.73	Fan
.01% +200a∨	.01 % +2mA	.025% +500µ√	.03% +10mA	200Ω/voit	1 volt/volt	10Q/Amp	2.5mV/Amp	0-12V	0-120A	105-125° 190-230 210-250	32.5 18.5 16.3	0.66	Fan
.01% +200μV	.01 % +1mA	.025% <del>15</del> 00μV	.03% +3mA	200Ω/volt	1 volt/volt	80Ω/Amp	80mV/Amp	0-25V	0-15A	105-125° 190-230 210-250	7.8 4.3 3.9	0,65	Convection
.01% +200μV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	409/Amp	20mV/Amp	0-25∀	0-30A	105-125° 190-230 210-250	13.6 7.5 6.8	0.64	Convection
.01% +200µV	.01% +1mA	.025% +500μV	.03% +3mA	200Ω/volt	1 volt/volt	20Ω/Amp	8mV/Amp	0-25√	0-60A	105-125° 190-230 210-250	28.0 15.4 14.0	0.64	Fan
.01% +200μV	.01% +0.5mA	.025% +500µV	.03% +3mA	<b>200</b> Ω/voIt	1 volt/volt	150Q/Amp	150mV/Amp	0-50V	0-8A	105-125* 190-230 210-250	6.3 3.5 3.2	0.58	Convection
.01 % +200µV	.01% +1mA	,025% +500µV	.03% +3mA	200Ω/voit	1 volt/volt	80Ω/Amp	qmA\Vm08	0-50V	0-15A	105-125° 190-230 210-250	13.2 7.3 6.6	0.56	Convection
.01 % +200 <sub>#</sub> V	.01% +1mA	.025% +500µV	.03% ÷3mA	200Ω/volt	1 volt/volt	40Ω/Amp	20mV/Amp	0-50V	0-30A	105-125° 190-230 210-250	22.0 12.0 11.0	0.675	Fah
.01 % +200µV	.01% +1mA	.025% +500µV	.03% +3mA	200Ω/volt	1 volVvsk	20Ω/Amp	8mV/Amp	0-50V	0-60A	190-230 <sup>2</sup> 210-250	25.0 23.0	0.66	Fan .
.01% +200µ∨	.01 % +0.5mA	.025% +500µV	.03% +3mA	200Ω/volt	1 volt/voli	250Ω/Amp	<b>250mV/A</b> mp	0-80V	0-5A	105-125° 190-230 210-250	5.0 3.3 3.0	33.0	Convection
.01% †:200μV	.01% +1mA	.025% +500µV	.03% ÷3mA	200Ω/volt	1 voltřívotí	125Ω/Amp	125mV/Amp	0-80V	0-10A	105-125° 190-230 210-250	6.9 6.2 <u>5</u>	0.54	Convection
.01% +200µV	.01% / +1mA	.025% +500µV	.03% +3mA	200Ω/voli	1 volt/volt	t 50Ω/Amp	40mV/Amp	0-80V	0-20A	105-125° 190-230 210-250	22.0 12.0 11.0	0.685	Fan
.01% +200µV	.01% -F1mA	.025% +500μ∨	.03% +3mA	\$00€\vojt	1 volt/vol	25Ω/Amp	15mV/Amp	V08-0	<b>0-4</b> 0A	190-230 <sup>9</sup> 210-250	26.0 24.0	0.6	Fan

NL to FL or FL to NL.

- Models SRL40-50 and SRL60-35 have 190-230 Vac input. Models SRL40-50 Mt and SRL60-35 M1 have 210-250 Vac input.
- Voltage-mode constants are factory selected. They may be altered at rear terminal board.

Standard model has 105-125 Vac input. Models with M1 suffix (example SRL10-50 M1) have 190-230 Vac input. Models with M2 suffix (example SRL10-50 M2) have 210-250 Vac input.



HAY THEON REFERENCE ONLY

TERMINAL ARRANGEMENT

1.EE 584785 FIG. 1 FOR

JURY LEMENT TO 584785 SH 3 18 3

FRACTION ±1/32 DECIMAL ±.03